

ABSTRACT

An amplifier system for satellites

The present invention relates to an amplifier system for satellites, in particular for radio-frequency amplifier systems incorporating travelling wave tube amplifiers and used in space repeaters. The amplifier system (1) includes two amplifier modules (A_1 , A_2) each having an input and an output, a signal divider (D) having an input, a first output, and a second output, a signal combiner (C) having a first input, a second input and an output. The first output of the divider (D) is connected to the input of the first amplifier module (A_1) via a connection length Le_1 . The second output of the divider (D) is connected to the input of the second amplifier module (A_2) via a connection length Le_2 . The output of the first amplifier module (A_1) is connected to the first input of the combiner (C) via a connection length Ls_1 . The output of the second amplifier module (A_2) is connected to the second input of the combiner (C) via a connection length Ls_2 . The connection length satisfies the equation $Le_1 + Ls_1 = Le_2 + Ls_2$ and the connection length Ls_1 is different from the connection length Ls_2 .

Figure to be published: figure 1